

REMARKS/ARGUMENTS

Claims 1-4 are pending in the present application. Withdrawn claims 5-12 are cancelled with this amendment.

Claim 1 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claim 1 of copending application no. 10/033,426. Claims 2-4 are provisionally rejected for double patenting over claim 1 of the '426 application in combination with Gazeau (US Publication No. 2003/0059341). All the claims are rejected under 35 U.S.C. § 103(a) for allegedly being obvious over Nakao (US Patent 6,589,740) in view of Gazeau. Each of the rejections will be addressed in the order it was raised.

To establish a *prima facie* case of obviousness, the Examiner must meet three basic criteria. First, the Examiner must show that there is some suggestion or motivation, either in the cited references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, the Examiner must show a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991) and MPEP § 2142. To support the rejection, the examiner must "present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985) and MPEP § 2142.

It is well established that an obviousness-type double patenting rejection is analogous to a rejection under §103(a) and that the same analysis is employed as that used to determine patentability under §103(a). MPEP §804.

Provisional Obviousness-type Double Patenting Rejection

The provisional rejection of claim 1 for allegedly being obvious over claim 1 of the '426 application is respectfully traversed. The rejection is based simply on an assertion that the method of claim 1 is "an obvious variation" of the method of claim 1 in the '426 application.

No other reasoning or evidence is provided to support the rejection. As noted above, the MPEP is clear that the Examiner must provide a "convincing line of reasoning" to support the rejection. Applicants respectfully submit that in the absence of such a showing the rejection is improper and should be withdrawn.

Analysis of the claims, moreover, shows that the two methods are patentably distinct. In particular, the two methods are distinguishable in the manner in which the liquid sample is agitated over the nucleic acid arrays. Claim 1 of the '426 application is directed to methods comprising a chamber in which an oligonucleotide array faces a wall, which comprises

a rigid segment of said wall being *adapted to be swung about a predetermined angle back and forth about a torsion bar*, swinging of the rigid segment in one sense moving one end thereof towards said active surface, and swinging of the rigid segment in an opposite sense moving said one end of that segment away from said active surface (emphasis added)

Claim 1 of the present application, in contrast, is directed to methods which use a chip shaped carrier held in a cartridge and a cartridge holder. The claim requires a step of

oscillating said cartridge holder and thereby said cartridge about an axis of rotation which is substantially perpendicular to a vertical plane and thereby moving said cartridge back and forth between a first angular position and a second angular position.

In the '426 application agitation is achieved by swinging of the rigid segment within the cartridge. In the present application, agitation is achieved by oscillating the entire cartridge. In the absence of reasoning or evidence to show why one of skill would be motivated to use one method in light of the other, the rejection is improper and should be withdrawn.

Claims 2-4 stand provisionally rejected over the '426 application in combination with Gazeau. As noted above, the methods of claim 1 of the present application are distinct from

those claimed in the '426 application. The Examiner cites nothing in Gazeau that addresses the differences between the two methods. Indeed, as noted by the Examiner, Gazeau teaches yet another method for agitating the sample over a nucleic acid array. In Gazeau agitation is achieved using the stopping and starting of a rotatable rotor (*see* paragraph 30). The Office Action provides no reasoning or evidence to show how the additional limitations of claims 2-4 are disclosed or suggested by the reference. Withdrawal of the rejection is respectfully requested.

Rejection Under 35 U.S.C. § 103(a)

The rejection of claims 1-4 for allegedly being obvious over Nakao and Gazeau is respectfully traversed. According to the Examiner, Nakao discloses a method of contacting a sample solution with a nucleic acid array, but teaches use of a pressurized-type supplying unit to agitate the sample solution over the array. As acknowledged in the Office Action, Nakao fails to teach oscillating a cartridge to agitate the solution over the array. The Examiner relies Gazeau for allegedly providing this teaching. As acknowledged by the Examiner, however, Gazeau states that "the succession of rotational starts and stops agitates the liquids" in that device. Thus, the Examiner has identified nothing in the cited references, alone or in combination, that discloses agitating the sample solution over the array using the step of oscillating a cartridge, as claimed here.

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Reply to Office Action of October 2, 2003

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CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested. If a telephone conference would expedite prosecution of this application, the Examiner is invited to telephone the undersigned at 415-576-0200.

Respectfully submitted,

Kevin Bastian
Reg. No. 34,774

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 415-576-0200
Fax: 415-576-0300
Attachments
KLB:klb
60138494 v1